

Exhibit T

IN THE STATE COURT OF COBB COUNTY
STATE OF GEORGIA

VERONICA ALAINE FOX,

Plaintiff,

v.

GENERAL MOTORS LLC and
ATLANTA AUTO BROKERS, INC.,

Defendants.

*
*
*
*
*
*
*
*
*
*

CIVIL ACTION FILE

NO. 14A 3468-4

RECAST & AMENDED COMPLAINT FOR DAMAGES

COMES NOW Plaintiff Veronica Fox and files this Complaint for Damages against Defendants General Motors LLC ("GM LLC") and Atlanta Auto Brokers, Inc. ("AAB"), and respectfully shows the following:

INTRODUCTION

On November 12, 2013, Plaintiff Veronica Fox was rendered quadriplegic in a rollover wreck in the General Motors 2004 SRX she was driving. She was properly restrained in the vehicle. When the SRX rolled over, the top of the roof literally came off the vehicle, and the remaining roof structure buckled and collapsed on top of her. Her injuries were caused by the resulting roof crush that occurred during the rollover. Her injuries were entirely preventable. Her injuries would not have happened had General Motors Corporation ("GM Corp.") designed the 2004 SRX to provide proper protection for the occupants in a foreseeable rollover wreck. ~~They would not have happened if General Motors LLC ("GM LLC") would have warned her of the dangers of the roof design.~~

GM Corp. ~~and GM LLC~~ knew and expected that its vehicles *would be* involved in rollovers. GM Corp., like other automakers such as GM LLC, had the resources to design and manufacture automobiles that would provide proper protection to the occupants in a rollover. But GM Corp. designed the 2004 Cadillac SRX with a roof structure that *it knew* would utterly fail to provide such protection: the roof panel was made almost entirely of glass; the roof was secured to the vehicle by nothing but glue, with no welds or other mechanical fasteners; predictably, the entire, glued-on roof came off during the rollover, leaving a gaping hole in the top of the vehicle and depriving the roof system of the support the top of the roof should provide; there was little to no lateral support going across the roof to help support the sides of the vehicle when the roof panel came off during the roll; and the remaining roof structure was so inadequate, it buckled and crushed onto Veronica Fox's head, catastrophically and permanently injuring her. ~~GM LLC knew all these facts. Yet, it chose not to warn Veronica Fox, or anyone else, of the dangerous design of the 2004 SRX.~~

Plaintiff files this action to recover for the injuries caused by GM Corp.'s decision to adopt an unreasonably dangerous roof design, and for ~~GM LLC's~~ and Atlanta Auto Broker Inc.'s ("AAB") election not to warn citizens including Plaintiff Fox of the dangers of the 2004 SRX.

I. PARTIES, JURISDICTION, VENUE, & SERVICE OF PROCESS

1.

Plaintiff Veronica Fox is a citizen and resident of the State of Georgia. Plaintiff is subject to the jurisdiction of this Court.

2.

Defendant GM LLC is a foreign corporation organized and incorporated under the laws of Delaware, with its principal place of business located at 300 Renaissance Center, Detroit,

Michigan 48265. GM LLC, like GM Corp., is engaged in the business of designing, manufacturing, marketing, promoting, advertising, distributing, and selling automobiles, trucks, SUVs, and other types of vehicles in the State of Georgia, throughout the United States, and elsewhere.

3.

GM LLC is subject to the jurisdiction of this Court because it transacts business in this State and maintains a registered agent in this State: CSC of Cobb County, Inc., 192 Anderson Street S.E., Suite 125, Marietta, Georgia 30060. GM LLC may be served with legal process there.

4.

Venue is proper in Cobb County as to Defendant GM LLC under O.C.G.A. § 14-2-510 and GA. CONST. art. VI, § 2, ¶ VI, because Cobb County is where Defendant GM LLC maintains a registered agent.

5.

Defendant AAB is a domestic corporation organized and incorporated under the laws of Georgia, with its principal place of business located at P.O. Box 3262, Alpharetta, Georgia 30023. AAB is engaged in the business of buying, selling, and inspecting used automobiles in the State of Georgia.

6.

Defendant AAB is subject to the jurisdiction of this Court because it is incorporated in this State, it transacts business in this State, and maintains a registered agent in this State: Joe

Milligan, 487 Cobb Parkway, SE, Marietta, Georgia 30060. AAB may be served with legal process there.

7.

Venue is proper in Cobb County as to Defendant AAB under O.C.G.A. § 14-2-510 and GA. CONST. art. VI, § 2, ¶ VI, because Cobb County is where Defendant AAB maintains a registered agent and under GA. CONST. art. 6, § 2, ¶ IV because it is a joint tortfeasor with Defendant GM LLC.

II. OPERATIVE FACTS

8.

On November 12, 2013, at around 2:00 a.m., Veronica Elaine Fox was the restrained driver of a 2004 Cadillac SRX designed, manufactured, and sold by GM Corp. (VIN: 1GYDE63A740113793) (“the subject SRX” or “subject vehicle”). Carl Coward was a restrained passenger in the front right seat. The subject SRX was traveling north on I-285, past the intersection with Martin Luther King Dr.

9.

Plaintiff Veronica Fox was properly seated in the driver’s seat, wearing her seat belt.

10.

While traveling down the highway, the SRX left the roadway. The SRX rolled over and came to rest off the shoulder north of Martin Luther King Dr.

11.

GM Corp. manufactured, designed, marketed, and distributed the subject vehicle with a defective roof which was unable to withstand the forces of this foreseeable and survivable event. As the direct and proximate result of the defects in the roof structure of the subject vehicle, the

roof panel came completely off during the wreck and the remaining structure crushed down on Plaintiff Veronica Fox during this incident, rendering her a quadriplegic.

12.

Defendant AAB inspected the vehicle and sold it to Plaintiff shortly before the wreck occurred. Defendant AAB had a duty to warn Veronica Fox of the danger posed by the SRX roof. AAB breached that duty.

13.

The defects and failures of the subject vehicle, combined with the acts and omissions of GM Corp., ~~GM LLC~~, and AAB, caused Veronica Fox's injuries.

14.

As a direct and proximate result of the subject vehicle's defects and failures and the tortious acts and omissions of GM Corp., ~~GM LLC~~, and AAB, Plaintiff Veronica Fox endured, continues to endure, and will endure in the future physical and emotional pain and suffering.

15.

GM Corp. designed, tested, manufactured, marketed, distributed, and sold the subject SRX, thereby placing it into the stream of commerce.

16.

The subject SRX was defective, unreasonably dangerous, and not fit for its ordinary use when manufactured as well as at the time of the subject incident because (a) the design GM Corp. chose for the roof structure did not offer proper protection to occupants in foreseeable crashes; (b) the risks of GM Corp.'s chosen design outweighed the utility of the design; and (c) GM Corp. did not implement safer, feasible, and practicable alternative designs that would have prevented Plaintiff Veronica Fox's injuries.

17.

GM Corp. could have reasonably foreseen and did, in fact, foresee the occurrence of rollovers such as the one described in this Complaint.

18.

But for GM Corp.'s negligent and defective design of the SRX, and the vehicle's failure to offer proper crash protection to occupants in foreseeable wrecks, Veronica Fox would not have been seriously injured in this wreck.

19.

At the time the subject SRX was manufactured and at all times since then, GM Corp. has had actual knowledge from, among other things, its notice of real-world incidents involving its vehicles, its own testing, and the laws of physics, that when a roof lacks sufficient structural crashworthiness, occupants are highly vulnerable to being injured, paralyzed, or killed in a rollover.

20.

Despite its knowledge set forth above, GM Corp. consciously designed the 2004 SRX, and other GM Corp. vehicles equipped with the same or similar performing roofs, so that occupants would be subject to injury from roof crush.

21.

Despite knowing at the time the subject Cadillac SRX was manufactured that safer alternative designs were technologically feasible, economically practicable, and fundamentally safer, GM Corp. wantonly and recklessly chose not to implement any of those alternative designs in the subject SRX and instead chose a design GM Corp. knew would result in preventable injuries and deaths in foreseeable wrecks.

22.

GM Corp.'s reckless and wanton conduct constituted disregard for the life and safety of Veronica Fox, and the lives and safety of the motoring public generally. GM Corp.'s reckless and wanton conduct also manifests a conscious indifference to the foreseeable consequences of that conduct to motorists like Veronica Fox.

23.

In 2009, after GM Corp. filed for Chapter 11 bankruptcy protection, Defendant GM LLC purchased ~~the~~ assets of GM Corp., including GM Corp.'s books and records.

24.

As part of its 2009 purchase of GM Corp., Defendant GM LLC expressly assumed liability for product liability claims *(as set forth in the Sale Agreement and* against GM Corp. that arose after the bankruptcy sale. *rulings by the Bankruptcy Court)*

25.

After the bankruptcy sale, Defendant GM LLC employed ~~the~~ engineers who designed the 2004 SRX roof, and GM LLC possessed all relevant knowledge, books, and records regarding the 2004 SRX roof design. In short, GM LLC acquired all knowledge regarding the 2004 SRX's defective roof from GM Corp.

26.

~~Defendant GM LLC could have reasonably foreseen and did, in fact, foresee the occurrence of rollovers such as the one described in this Complaint.~~

27.

~~Since the bankruptcy sale, Defendant GM LLC, like GM Corp., has had actual knowledge from, among other things, the knowledge of its engineers, the records and books it acquired from GM Corp., its notice of real-world incidents involving its and GM Corp.'s~~

~~vehicles, its and GM Corp.'s testing, GM LLC's decision to substantially strengthen the roof in the 2010 SRX, and the laws of physics, that when a roof lacks sufficient structural crashworthiness, occupants are highly vulnerable to being injured, paralyzed, or killed in a rollover.~~

28.

~~Since the bankruptcy sale, Defendant GM LLC, like GM Corp., has had actual knowledge from, among other things, the knowledge of its engineers, the records and books it acquired from GM Corp., its notice of real-world incidents involving its and GM Corp.'s vehicles, its and GM Corp.'s testing, GM LLC's decision to substantially strengthen the roof in the 2010 SRX, and the laws of physics, that the 2004 SRX roof was unreasonably dangerous and defective.~~

29.

~~Despite GM LLC's duty to warn and its knowledge of a need to warn the public, Defendant GM LLC failed at the time of the bankruptcy sale and all times since to adequately warn the consuming public, and Plaintiff in particular, of the dangers in a reasonably foreseeable wreck presented by the design of the SRX roof.~~

30.

Despite the knowledge set forth in the paragraphs above, ~~Defendant GM LLC~~ and GM Corp. wantonly and recklessly continued to sell the vehicle to the consuming public and maintained it in the stream of commerce without a warning, ~~recall~~ or remedy of the vehicle's defects.

31.

~~Defendant GM LLC's and~~ GM Corp.'s reckless and wanton conduct constituted disregard for the life and safety of Veronica Fox, and the lives and safety of the motoring public generally. ~~GM LLC's reckless and wanton conduct also manifests a conscious indifference to the foreseeable consequences of that conduct to motorists like Veronica Fox.~~

32.

But for the tortious conduct of GM Corp. ~~and GM LLC,~~ Plaintiff Veronica Fox would not have been seriously injured in this wreck.

33.

As a direct and proximate result of GM Corp. ~~and GM LLC's~~ tortious conduct, Plaintiff Veronica Fox endured, continues to endure, and will endure in the future physical and emotional pain and suffering.

34.

No person other than Defendant GM LLC and Defendant AAB is liable for the injuries and damages sustained by Veronica Fox.

35.

Plaintiff's injuries and damages were proximately caused by the tortious acts and omissions of GM Corp., ~~GM LLC,~~ and AAB. The tortious acts and omissions of GM Corp., ~~GM LLC,~~ and AAB that caused the personal injuries to Veronica Fox are described more fully and specifically in the paragraphs below.

III. SPECIFIC COUNTS

COUNT ONE

Strict Liability of General Motors LLC

36.

Plaintiff incorporates as if re-alleged herein in full paragraphs 1 through 35 of this Complaint.

37.

GM Corp. is strictly liable to Plaintiff under O.C.G.A. § 51-1-11 and other applicable law because the risks inherent in the design of the roof structure in the 2004 Cadillac SRX outweighed any utility of the chosen design, thereby rendering the vehicle defective, unreasonably dangerous, and not reasonably suited to the use for which it was intended. The defects in the SRX include, but are not limited to, the following:

- a. The roof structure in the SRX failed to offer proper protection to occupants like Veronica Fox during foreseeable rollover events;
- b. The roof panel was made almost entirely of glass with a narrow rim of fiber glass;
- c. The roof panel was attached to the vehicle by nothing but glue;
- d. During the rollover, the entire roof panel came completely off the vehicle, leaving a gaping hole in the roof of the vehicle;
- e. GM Corp. knew that the glued-on glass roof would not protect occupants in a rollover;
- f. Despite this knowledge, GM Corp. did not design the remaining structure to protect occupants in a rollover;

- g. GM Corp. designed the 2004 SRX with a strength-to-weight ratio of 1.9, which earned it the lowest possible rating for roof strength by the Insurance Institute for Highway Safety. *See* Exhibit A, IIHS Website, <http://www.iihs.org/iihs/ratings/ratings-info/roof-strength-test> (last visited May 19, 2016). According to IIHS, a strength-to-weight ratio of 1.9 is not “good,” “acceptable,” or even “marginal”—it is “**poor.**” *Id.*;
- h. GM Corp. did not adequately test the performance of the SRX’s roof structure to determine whether prospective owners, users, and occupants of the 2004 SRX would be exposed to an unreasonable risk of physical harm during rollover events;
- i. GM Corp. knew, or should have known, from the testing that was performed on the SRX and other GM Corp. vehicles with the same or similar roofs, from real world incidents, and from the laws of physics, that the SRX roof would fail, and GM Corp. knew that serious injury to vehicle occupants could result;
- j. The SRX does not contain, and is not accompanied by, warnings to prospective owners, users, or occupants, including Plaintiff, either at the time of sale or post-sale, of the unreasonable risk of physical harm associated with the design of the roof structure of the 2004 SRX;
- k. The SRX does not contain, and is not accompanied by, adequate warnings to prospective owners, users, or occupants, including Plaintiff, either at the time of sale or post sale, of the unreasonable risk of physical harm associated with the design of the roof structure of the 2004 SRX.

(as set forth in The Sale Agreement
and rulings by the
Bankruptcy Court).

38.

Defendant GM LLC assumed liability for product liability claims against GM Corp. that arose after the bankruptcy sale. Plaintiff's strict liability claims against GM Corp. are properly asserted against GM LLC.

39.

The defects in the 2004 Cadillac SRX, in concert with the acts and omissions of ~~Defendants GM LLC and~~ AAB, proximately caused Plaintiff's injuries and damages.

40.

Defendants are liable for the injuries and damages Plaintiff suffered.

COUNT TWO

Negligence of General Motors LLC

41.

Plaintiff incorporates as if re-alleged herein in full paragraphs 1 through 40 of this Complaint.

42.

GM Corp. owed a duty to the consuming public in general, and Plaintiff in particular, to exercise reasonable care to design, test, manufacture, inspect, market, and distribute a product free of unreasonable risk of harm to owners, users, and occupants.

43.

At the time GM Corp. manufactured, marketed, distributed, and sold the 2004 SRX, GM Corp. could reasonably have foreseen and did, in fact, foresee the occurrence of rollover events such as the one described in this Complaint.

44.

GM Corp. breached its duty to exercise reasonable care as set forth in the paragraphs above.

45.

In concert with the acts and omissions of Defendant AAB ~~and GM LLC~~, GM Corp.'s negligence proximately caused Plaintiff's injuries and damages.

46.

Defendant GM LLC assumed liability for product liability claims against GM Corp. that arose after the bankruptcy sale. Plaintiff's negligence claims against GM Corp. are properly asserted against GM LLC.

(as set forth in the Sale Agreement and rulings by the Bankruptcy Court).

47.

Defendants are liable for the injuries and damages suffered by Plaintiff.

COUNT THREE

General Motors LLC's Failure to Warn

~~48.~~

~~Plaintiff incorporates as if re-alleged herein in full paragraphs 1 through 47 of this Complaint.~~

49.

GM LLC could reasonably have foreseen and did, in fact, foresee the occurrence of rollover events such as the one described in this Complaint.

50.

GM LLC owed a duty to the consuming public in general, and to Plaintiff in particular, to warn of the dangers arising from the design of the SRX.

51.

~~GM LLC knew after the bankruptcy sale about the danger of the roof of the 2004 SRX, but chose not to warn the public or Plaintiff about that danger.~~

52.

~~In concert with the acts and omissions of Defendant AAB and GM Corp., GM LLC's failure to warn proximately caused Plaintiff's injuries and damages.~~

53.

~~Defendants are liable for the injuries and damages Plaintiff suffered.~~

COUNT FOUR

Punitive Damages

54.

Plaintiff incorporates as if re-alleged herein in full paragraphs 1 through 53 of this Complaint.

55.

GM LLC acted with conscious indifference to the safety and well-being of the public in failing to effectively repair or warn about the dangers of the 2004 SRX. GM LLC knew or should have known of those dangers. GM LLC purchased all GM Corp.'s books and records revealing the defective and dangerous design of the 2004 SRX roof. GM LLC employed the same engineers who designed and knew about the defective and dangerous design of the 2004 SRX roof. Despite knowing of the dangers posed by the 2004 SRX, GM LLC acted wantonly and with conscious indifference to the safety and well-being of the public, as defined by O.C.G.A. § 51-12-5.1, in failing to repair or warn about the dangers of the 2004 SRX.

56.

~~Defendant GM LLC's own failure to warn, which occurred after the June 2009 bankruptcy sale, was so egregious that it rises to the level of conscious indifference to the safety and well-being of the public under O.C.G.A. § 51-12-5.1. Such misconduct warrants the imposition of punitive damages against GM LLC.~~

COUNT FIVE

Statute of Repose

57.

Plaintiff incorporates as if re-alleged herein in full paragraphs 1 through 56 of this Complaint.

58.

The willful and wanton misconduct by GM Corp. ~~and GM LLC~~ referenced in this Complaint precludes the application of any statute of repose as a defense. Georgia's statute of repose does not bar claims when the defendant acted with willful and wanton disregard of the dangers of its conduct.

59.

~~GM LLC's failure to warn of the dangers referenced in this Complaint precludes the application of any statute of repose as a defense. Georgia's statute of repose does not bar claims when the defendant failed to warn of the dangers which were known to or should have been known to the defendant.~~

COUNT SIX

Atlanta Auto Brokers, Inc.'s Failure to Warn

60.

Plaintiff incorporates as if re-alleged herein in full paragraphs 1 through 59 of this Complaint.

61.

Defendant AAB sold the subject 2004 Cadillac SRX to Plaintiff Veronica Fox on or about September 27, 2013, less than two months before the wreck that is the subject of this Complaint.

62.

AAB is in the business of buying, selling, and inspecting cars. It has been in that business for over 20 years. As a result of this extensive experience, AAB has specialized and superior knowledge about cars, car repair and parts, vehicle safety, and vehicle quality.

63.

Before selling the vehicle to Plaintiff, Defendant AAB undertook to inspect the vehicle for Plaintiff's benefit. It therefore had a duty to conduct its inspection non-negligently.

64.

Plaintiff originally sought to purchase a Chevrolet Suburban at AAB, but AAB's inspection had revealed the Suburban needed repairs. AAB therefore discouraged Plaintiff from purchasing that vehicle. AAB told Plaintiff that the SRX had passed its inspection. AAB therefore encouraged her to choose the SRX instead of the Suburban. Plaintiff relied upon AAB's inspection and its statements about the inspection when she chose to purchase the subject SRX.

65.

AAB also detailed the car before selling it Plaintiff. AAB's inspection and detail of the vehicle either did or should have revealed the dangers of the SRX roof, including but not limited to the fact that the roof was made almost entirely of glass and was attached by nothing but glue. A lay person like Plaintiff would not know that the roof was made of glass because the rear panels of glass were concealed from the inside by the headliner. Plaintiff, in fact, did not know that the roof was made almost entirely of glass until after the wreck occurred.

66.

Defendant AAB encouraged Plaintiff to purchase the SRX because of the sunroof. AAB repeatedly emphasized the sunroof as a selling feature because it extended to the second row of seats. AAB's statements about the sunroof were incomplete and misleading because AAB did not inform Plaintiff that the glass actually extended almost the entire length of the vehicle and because the structure of the roof was itself a deadly design defect.

67.

AAB provided safety warnings to Plaintiff about the use of the sunroof, advising her not to allow passengers to "hang out of the sunroof." AAB's warnings were incomplete and misleading because they suggested that the only danger associated with the roof was the danger of passengers being injured as a result of a decision to "hang out of the sunroof."

68.

Defendant AAB knew or should have known that the SRX roof would not protect occupants in the event of a rollover wreck and therefore had a duty to warn Plaintiff about the dangers created by the SRX roof. AAB's actual or constructive knowledge was a result of its superior knowledge of vehicle parts, quality, and safety, generally—and the SRX's parts, quality,

and safety, specifically; its inspection of the vehicle; and its knowledge about the SRX roof and sunroof.

69.

Defendant AAB knew or reasonably should have known that the SRX roof was dangerous and could result in serious or catastrophic injury or death in foreseeable rollover wrecks.

70.

Plaintiff would not have purchased the SRX had she been informed of and known about the dangers of the roof.

71.

In concert with the acts and omissions of GM Corp. ~~and GM LLC~~, AAB's failure to warn proximately caused Plaintiff's injuries and damages.

72.

Defendant AAB is liable for the injuries and damages Plaintiff suffered.

DAMAGES & PRAYER FOR RELIEF

73.

Plaintiff incorporates as if re-alleged herein in full paragraphs 1 through 72 of this Complaint.

74.

As a direct result of the defective condition of the 2004 SRX, GM Corp.'s negligence, ~~GM LLC's failure to remedy or give appropriate warnings about the vehicle~~, and AAB's failure to warn about the vehicle, Plaintiff Veronica Fox has suffered severe and permanent personal injuries, including quadriplegia.

75.

Plaintiff Veronica Fox seeks damages from Defendants in an amount to be determined by the enlightened conscience of the jury and as demonstrated by the evidence, for all elements of compensatory damages allowed by Georgia law. Plaintiff's injuries are permanent, and damages sought include the following:

- a. all components of the mental and physical pain and suffering Veronica Fox endured upon impact and up until the present time;
- b. all components of the mental and physical pain and suffering Veronica Fox will endure in the future;
- c. past and future loss of enjoyment of life; and
- d. all past and future economic losses, including medical bills, medical expenses, other necessary expenses for the care and treatment of Veronica Fox, including household services.
- ~~e. Punitive damages against Defendant GM LLC, pursuant to O.C.G.A. § 51-12-5.1, in an amount to be determined by the enlightened conscience of the jury to be sufficient to punish GM LLC for the harm caused to them and to deter GM LLC from similar misconduct.~~

76.

WHEREFORE, Plaintiff prays for the following relief:

- a. That summons issue and service be perfected upon Defendants requiring them to appear before this Court and answer this Complaint for Damages;
- b. That judgment be entered against Defendants;

- c. That Plaintiff Veronica Fox recovers all elements of compensatory damages, including general and special damages, against Defendants;
- d. ~~That Plaintiff Veronica Fox recovers punitive damages against Defendant GM LLC,~~
- e. That all costs be cast against Defendants; and
- f. That Plaintiff has such other and further relief as this Court deems just and proper.

This 20th day of May, 2016.

Respectfully submitted,

BUTLER WOOTEN & CHEELEY & PEAK LLP

BY: 
JAMES E. BUTLER, JR.

Georgia Bar No. 099625
TEDRA L. CANNELLA
Georgia Bar No. 881085
ROBERT H. SNYDER
Georgia Bar No. 404522

2719 Buford Highway
Atlanta, Georgia 30324
(404) 321-1700

KENNETH S. NUGENT PC

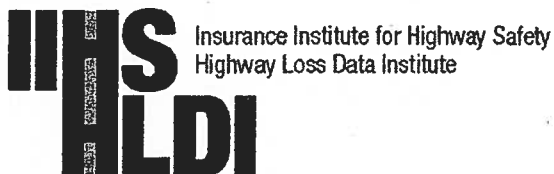
BY: 
WILLIAM G. HAMMILL

Georgia Bar No. 943334
*Signed with Express Permission
by Tedra C. Hobson*

4227 Pleasant Hill Road
Building 11, Suite 300
Duluth, GA 30096
1. (404) 885-1983

ATTORNEYS FOR PLAINTIFF

EXHIBIT A



About our tests

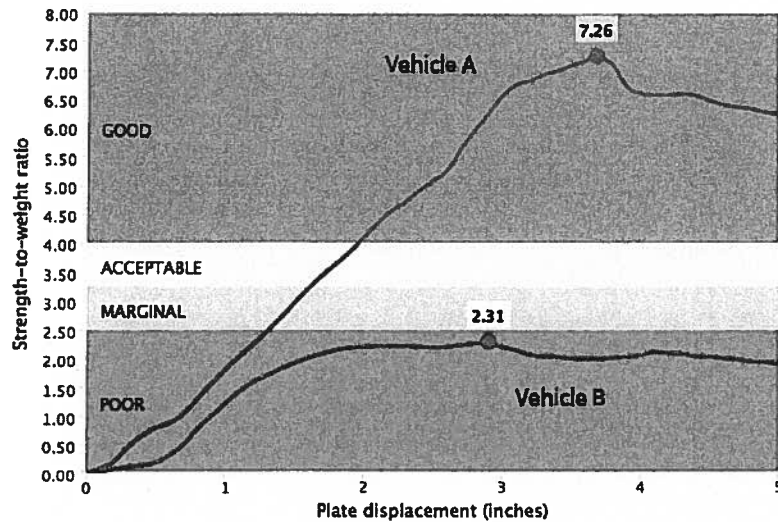
IIHS evaluates a vehicle's crashworthiness with the help of five tests: moderate overlap front, small overlap front, side, roof strength and head restraints & seats. For front crash prevention ratings, the Institute conducts low- and moderate-speed track tests of vehicles with automatic braking systems. IIHS also conducts evaluations of headlight systems and of the child seat attachment hardware known as LATCH. The descriptions below explain how each test is conducted and how the results translate into ratings.

Thousands of people are killed each year in rollovers. The best way to prevent these deaths is to keep vehicles from rolling over in the first place. Electronic stability control is significantly reducing rollovers, especially fatal single-vehicle ones. When vehicles do roll, side curtain airbags help protect the people inside, and belt use is essential. However, for these safety technologies to be most effective, the roof must be able to maintain the occupant survival space when it hits the ground during a rollover. Stronger roofs crush less, reducing the risk that people will be injured by contact with the roof itself. Stronger roofs also can prevent occupants, especially those who aren't using safety belts, from being ejected through windows, windshields or doors that have broken or opened because the roof has deformed.

In the test, the strength of the roof is determined by pushing a metal plate against one side of it at a slow but constant speed. The force applied relative to the vehicle's weight is known as the strength-to-weight ratio. This ratio varies as the test progresses. The peak strength-to-weight ratio recorded at any time before the roof is crushed 5 inches is the key measurement of roof strength.

A good rating requires a strength-to-weight ratio of at least 4. In other words, the roof must withstand a force of at least 4 times the vehicle's weight before the plate crushes the roof by 5 inches. For an acceptable rating, the minimum required strength-to-weight ratio is 3.25. For a marginal rating, it is 2.5. Anything lower than that is poor.

The figure below shows sample results for two vehicles — one rated good and one rated poor. Peak force for Vehicle A is 7.26. Since that number is higher than 4, the vehicle is rated good. Peak force for Vehicle B is 2.31. Since that number is lower than 2.5, the vehicle is rated poor.



The following video shows how the roof strength test is conducted. In this test of the 2010 Buick LaCrosse, the peak force is 19,571 pounds for a strength-to-weight ratio of 4.90 and a good rating. The playback speed of this video has been increased. The plate normally crushes at a rate of about 1/8 inch per second.

In every test, the roof is crushed 5 inches. What varies — and can't be seen in a video — is the force used by the machine to achieve that degree of crush. To demonstrate how roof strength can vary and what those differences mean for people inside a vehicle during a rollover, IIHS conducted a demonstration in which two vehicles with different roof strength ratings were subjected to identical force. This video shows what happened when the 2009 Volkswagen Tiguan, rated good for roof strength, and the 2008 Kia Sportage, rated poor, were each subjected to a crush force of 15,000 pounds.

CERTIFICATE OF SERVICE

This is to certify that I have this day served counsel of record with a copy of the foregoing pleading by depositing it in the United States Mail with adequate postage affixed thereon and addressed as follows:

Kevin J. Malloy, Esq.
Bowman and Brooke LLP
1441 Main Street, Suite 1200
Columbia, SC 29201

Thomas M. Klein, Esq.
C. Megan Fischer, Esq.
Bowman and Brooke LLP
2901 N. Central Avenue, Suite 1600
Phoenix, AZ 85012

C. Bradford Marsh, Esq.
Swift, Currie, McGhee & Hiers, LLP
1355 Peachtree St., N.E., Suite 300
Atlanta, GA 30309

Carrie L. Christie, Esq.
Robert H. Burke, Esq.
Rutherford & Christie LLP
225 Peachtree Street NE
South Tower, Suite 1750
Atlanta, GA 30303

William T. Casey, Jr., Esq.
Erica L. Morton, Esq.
Hicks, Casey & Morton, P.C.
136 North Fairground Street, N.E.
Marietta, GA 30060-1533

This 20th day of May, 2016.

BUTLER WOOTEN CHEELEY & PEAK LLP

BY: 

JAMES E. BUTLER, JR.
Georgia Bar No. 099625
TEDRA L. CANNELLA
Georgia Bar No. 881085
ROBERT H. SNYDER
Georgia Bar No. 404522